

REMARKS

This application is amended in a manner to place it in condition for allowance at the time of the next Official Action.

Status of the Claims

Claim 1 is amended. Support for the amendment may be found, for example, at lines 15-16 of page 7, lines 16-19 of page 11 and lines 17-19 of page 12 of the present specification.

Accordingly, claim 2 has been amended to be consistent with the features of claim 1, and claim 4 has been canceled.

Claims 1-3, 5 and 6 remain in this application.

Claim Rejections-35 USC §102

Claims 1-6 were rejected under 35 U.S.C. §102(b) as being anticipated by KAWAKAMI et al. US 6,051,340 ("KAWAKAMI"). This rejection is respectfully traversed for the reasons below.

Independent claim 1 is directed to an anode for a nonaqueous secondary battery comprising a pair of current collecting surface layers of which the surfaces are adapted to be brought into contact with an electrolytic solution and at least one active material layer interposed between the surface layers. The active material layer contains particles of an active material having high capability of forming a lithium compound.

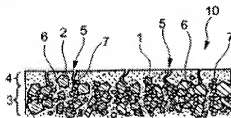
The anode further includes three advantageous features:

- (i) a material that makes up a current collecting surface layer comprises a metallic material having low capability of forming a lithium compound,
- (ii) the metallic material is present over the whole thickness of the active material layer, and
- (iii) the interstice between individual active material particles in the active material layer leaves voids.

These three features provide an advantage of relaxing the stress resulting from expansion and contraction of the active material particles due to intercalation and deintercalation of lithium. Additionally, the active material layer and the surface layer are firmly united such that fall-off of the active material particles is effectively prevented. These features are discussed at page 12, lines 20-22 and page 11, lines 21-22 of the present specification.

For example, Figure 1 of the present specification illustrates the collecting surface layer (item 4), the active material layer (item 3), the active material particles (items 2), and the voids (item 5):

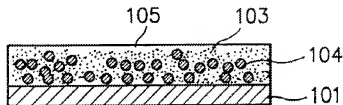
Fig.1



KAWAKAMI was offered for teaching anode comprising an active layer interposed between two layers, and the active layer is capable of forming lithium compounds. However, KAWAKAMI fails to disclose or suggest these features and their advantages.

For example, at best, KAWAKAMI teaches as follows:

FIG. 4(c)



In this figure, item 101 is the metal layer, item 104 represents an electrically conductive auxiliary, item 103 represents powdered material, and item 105 represents a binding agent. Thus, it is readily apparent that, at very least, KAWAKAMI fails to disclose or even suggest voids in the active material layer.

Therefore, KAWAKAMI does not anticipate independent claim 1 and the dependent claim 2, 3, 5, and 6, and withdrawal of the rejection is respectfully requested.

Claim Rejections-35 USC §103

Claims 1-6 were rejected under 35 U.S.C. §103(a) as being unpatentable over KAWASE et al. US 2004/0142242 ("KAWASE")

in view of KAWAKAMI. This rejection is respectfully traversed for the reasons below.

KAWASE was offered for teaching an anode having an anode collector and an anode active material. The Official Action recognizes that KAWASE fails to disclose or suggest at least one active material layer interposed between the current collection layers. KAWASE also fails to disclose or suggest three of the advantageous features of the claimed invention as discussed relative to the anticipation rejection.

KAWAKAMI was offered for teaching an anode having at least one active material layer interposed between the current collection layers. However, as discussed above with respect to the anticipation rejection, KAWAKAMI fails to disclose or suggest the advantageous features now recited in independent claim 1. Thus, the proposed combination fails to teach or suggest the claimed invention described in claims 1-3, 5, and 6.

Therefore, withdrawal of the rejection is respectfully requested.

Conclusion

In view of the amendment to the claims and the foregoing remarks, this application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our credit card which is being paid online simultaneously herewith for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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